

9/28/56

Screw-worm Feeding Test

Baumhover, New

Eight feeding methods were tested placing the estimated number of pupae in small cages 12" x 6" x 6" in quadruplicate to produce approximately 100 screw-worm flies in each cage. At the end of three days food and water was removed to obtain an indication of the food reserve built up by flies feeding on the various materials.

For three days flies feeding on a honey-meat mixture, honey-meat plus water, honey alone, 50% honey, honey alone plus water, and on sugar lumps alone plus water lived very well, with mortality ranging from 0.25% to 1.7%. Two days following the removal of the food, flies that had fed on 50% honey alone and on sugar lumps alone plus water, showed the lowest percent mortality, 38.2%. From the standpoint of ease of feeding the 50% honey solution appears to be the logical choice.

A test is in progress involving the proposed method of packaging pupae in waxed folding cartons $5\frac{1}{2}$ " x 4" x $1\frac{3}{4}$ " (as used for packing frozen vegetables) containing excelsior and the honey solution in soufflé cups (volume 20 cc's) containing a wad of cotton.

Any comments or criticism of the proposed procedure will be appreciated.

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Types of food provided and mortality on indicated days of screw-worm flies held in small cages (as used in mating tests) containing approximately 100 flies each.

Cage No's. :	Food ^{1/}	:Total number of flies dead :on indicated days (food :removed on 3rd day). :3rd day : 4th day : 5th day		
1-4	Honey-meat	7	227	397
5-8	Honey-meat ∇ H ₂ O (Std.)	7	74	349
9-12	Honey	7	18	219
13-16	50-50 Honey-H ₂ O	3	6	153
17-20	Honey ∇ H ₂ O	1	11	184
21-24	H ₂ O	350	416	--
25-28	2 Sugar lumps	87	323	406
29-32	2 Sugar lumps ∇ H ₂ O	2	3	153
33-36	No food nor H ₂ O	381	420	--

^{1/} - Indicates materials mixed together. ∇ indicates materials in separate containers.

